UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,938	02/14/2002	Steven L. Seed	P 281571	5330

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EXAMINER
BILGRAMI, ASGHAR H

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>14 February 2002</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-65</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-65</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>14 February 2002</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <u>05/08/2002</u>. 11/26/03 WG/

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

2.   Claims 1-65 are rejected under 35 U.S.C. 102(e) as being anticipated by Jungck (U.S.

PUB No. 2005/0021863A1).

1. As per claims 1, 16, 23, 38, 45 & 59 Jungck disclosed a system for managed object replication

and delivery, comprising: a plurality of edge servers in a network; and a plurality of parent

servers in the network (paragraph.19), wherein at least one of the plurality of edge servers and

the plurality of parent servers (paragraph.25): direct a request by a client for an object to an edge

server in the network (paragraphs. 27 & 35), if the edge server has the requested object, serve the

requested object to the client (paragraph.56), otherwise, redirect the client request to a server that

has the requested object and serve the requested object to the client, if the requested object is

popular, replicate the requested object to the edge server (paragraph.57).

2. As per claims 2, 24 & 46 Jungck disclosed the method of claim 1, wherein redirecting the

client request to a server comprises redirecting the client request to a parent server in the network

that has the requested object and serving the requested object to the client from the parent server

(paragraph.57).

3. As per claims 3, 25 & 47 Jungck disclosed the method of claim 1, wherein redirecting the

client request to a server comprises redirecting the client request to a parent server in the network

that does not have the requested object, recursively redirecting the request until a parent server in

the network having the requested object is reached and serving the requested object to the client

from the parent server (paragraph.57).

4. As per claims 4, 26 & 48 Jungck disclosed the method of claim 1, wherein redirecting the

client request to a server comprises redirecting the client request to an origin server if the

requested object is not available at a parent server in the network and serving the requested

object to the client from the origin server (paragraph.57).

5. As per claims 5, 27 & 49 Jungck disclosed the method of claim 1, wherein directing a request

by a client for an object to an edge server comprises directing a request by a client for an object

to a best or optimal edge server.

6. As per claims 6, 28 & 50 Jungck disclosed the method of claim 5, wherein a best or optimal

edge server comprises an edge server selected using at least one of a determination based on a

best repeater selector, the likelihood of a copy of the requested object being available at the edge

server, and the bandwidth between the edge server and the client.

7. As per claims 7, 29 & 51 Jungck disclosed the method of claim 1, wherein replicating the requested object to the edge server comprises replicating the requested object to the edge server from a parent server (paragraph.57).

8. As per claims 8, 9, 30, 31, 52, 53 & 65 Jungck disclosed the system of claim 59, wherein at least one of the plurality of edge servers and the plurality of parent servers further replicate the requested object from an origin server if the requested object is popular and the requested object is unavailable on pares servers in the network (paragraphs.57 & 61).

10. As per claims 10, 21, 32, 43, 54 & 63 Jungck disclosed the method of claim 1, wherein whether the requested object is popular is determined using at least a request rate for the requested object (paragraph.58).

11. As per claims 11, 12, 17, 18, 33, 34, 39, 40, 55 & 60 Jungck disclosed the system of claim 45, wherein at least one of the plurality of edge servers and the plurality of parent servers further delete an object if the object is no longer popular (paragraph.58).

13. As per claims 13, 19, 35, 41, 56 & 61 Jungck disclosed the method of claim 1, wherein replicating the requested object comprises replicating the requested object in accordance with a dynamic replication threshold (paragraph.57).

14. As per claims 14, 20, 36, 42, 57 & 62 Jungck disclosed the method of claim 1, wherein

replicating the requested object comprises: replicating the requested object when a popularity of

the requested object is great than a threshold popularity and there is enough storage to replicate

the requested object; otherwise, if there is not enough storage to replicate the requested object, i)

comparing the popularity of the requested object against a popularity of a least popular object in

the storage, ii) if the popularity of the requested object exceeds the popularity of the least popular

object in the storage, deleting the least popular object from the storage, iii) repeating i) and ii)

until enough storage is available for the requested object or the popularity of the requested object

is less than the popularity of the least popular object in the storage, and iv) replicating the

requested object if there is enough storage (paragraph.57).

15. As per claims 15, 22, 37, 44, 58 & 64 Jungck disclosed the method of claim 1, wherein

serving the requested object is performed separately from replicating the requested object

(paragraphs.25 & 27).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Asghar Bilgrami whose telephone number is 571-272-3907. The

examiner can normally be reached on M-F, 8:00-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David Wiley can be reached on 571-272-3923. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Examiner
Art Unit 2143

AB

Primary Examiner
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William C Vaughn, Jr